

Date: _____

Chapter 13 Lesson B: Relate Parts to its Whole (13.B.1)

Q1. The ice creams below are $\frac{1}{2}$ of all the ice creams that Serene has.



How many ice creams does Serene have altogether?

- First we look at the fraction \Rightarrow half or $\frac{1}{2} \Rightarrow$ we have 2 groups.
- Then we count the ice creams = 5 ice creams in one group.

$\frac{1}{2}$	$\frac{1}{2}$
5	? 5

- We have 5 in each group so we can either add $5 + 5 = 10$,
or we can multiply the number of groups \times number of items
in each group:

$$2 \text{ groups} \quad \times \quad 5 \text{ ice creams} = 10$$

$$\begin{aligned} 5+5 &= 10 \\ 2 \times 5 &= 10 \end{aligned}$$

10 ice creams

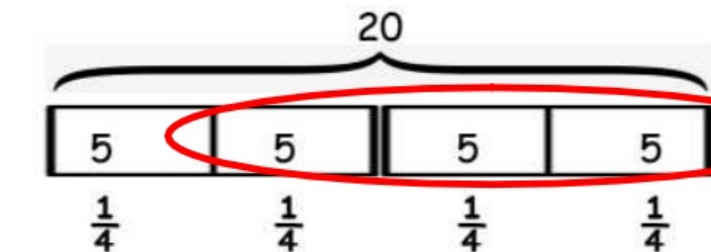
Q2. Mike bought 20 hot dogs.

$\frac{1}{4}$ of the hot dogs had ketchup on them while the rest had mustard.

How many hot dogs have mustard on them?

- First look at the fraction \Rightarrow one quarter or $\frac{1}{4} \Rightarrow$ we have 4 groups.
- We know all the items are 20 so we equally divide 20 into 4 groups.

$$20 \div 4 = 5$$



[ketchup]

20
5 ketchup 15 mustard

$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{4}{4} = 1$$

$$5 + 5 + 5 = 15$$

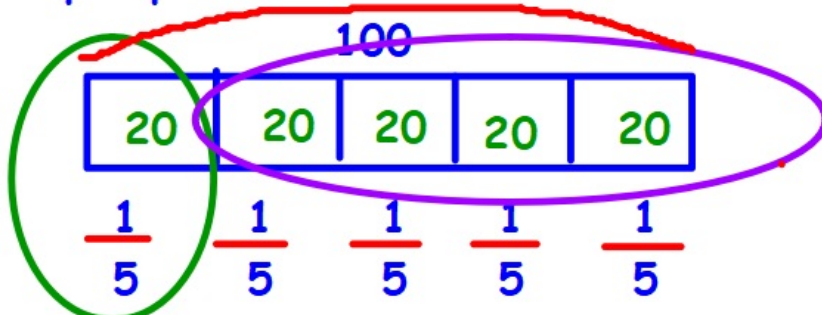
15 hot dogs

Q3. Mariam has 100 roses.

She gives $\frac{1}{5}$ of them to her friend.

How many roses are left?

5 equal parts



$$100 \div 5 = 20$$

$$100 - 20 = 80 \text{ left}$$

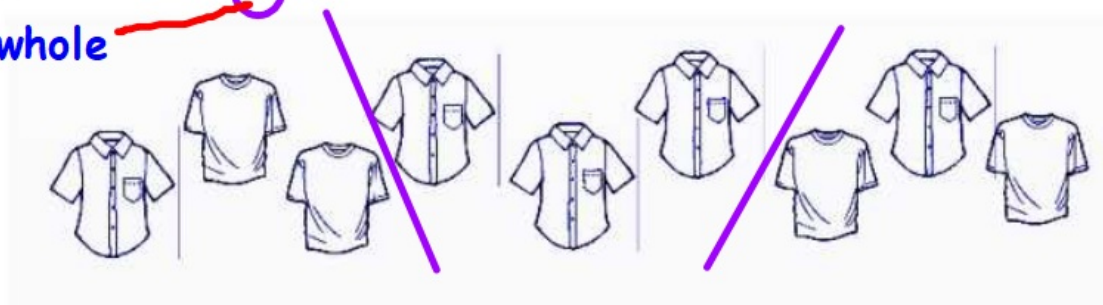
80 roses

She gave 20 roses to her friend.

Q4. These are $\frac{3}{6}$ of the shirts in a closet.

whole

parts

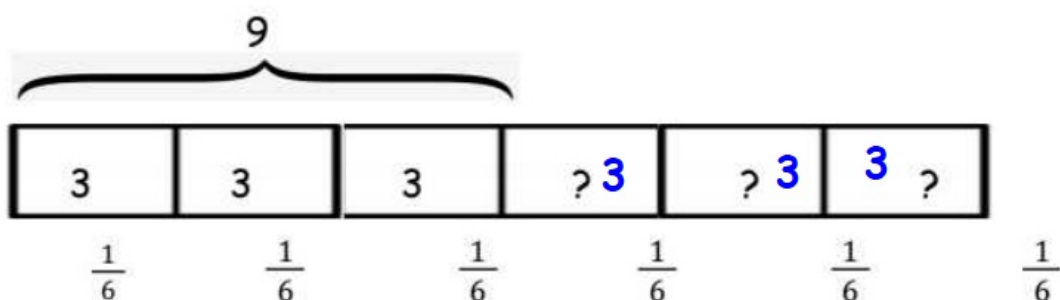


a) How many shirts are there altogether?

- By looking at the fraction $\frac{3}{6}$, we can find the number of groups:

6 groups in total, but what we can see is only 3 parts of 6.

- The shirts we can see are 9. We can divide 9 into **3 groups** of 3.



groups \times items =

$$6 \times 3 = 18$$

18 shirts

b) How many shirts are missing?

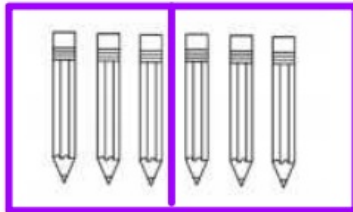
$$18 - 9 = 9$$

9 shirts

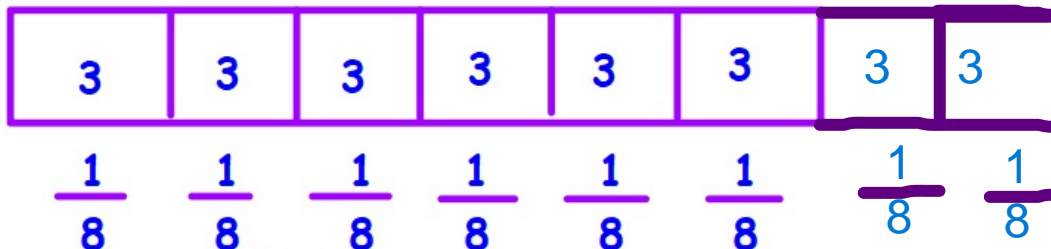
parts

whole

Q5. Mark has many pencils in his pencil case, he takes out $\frac{2}{8}$ only.



a) How many pencils were in his pencil case in the beginning ?



groups \times items =

$$8 \times 3 = 24 \text{ pencils}$$

b) If he breaks 5 of them, what is the fraction of the pencils left unbroken?

$$24 - 5 = 19 \text{ left}$$

$$\frac{19}{24}$$

$$\frac{19}{24} \text{ of pencils}$$